

## **REMARKS**

Claims 1-6 and 9-23 are pending.

Claims 1, 22-23 stand objected to because of informalities.

Claims 1-6, 9-23 stand rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. As set forth in the previous office action for reason of record.

Claims 1-6, 9-23 stand rejected under 35 USC §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicant regards as the invention.

Claims 1-6, 9-23 stand rejected under 35 USC §112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01.

Claims 1-6, 9-23 stand rejected under 35 USC §101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-6, 9-23 stand rejected under 35 USC §103(a) as being allegedly unpatentable over applicants' admitted prior arts (APA) by Koza et al. (US 5,867,397) in view of another APA (Ullman, J.R) as set forth in the previous office action.

### **Objection to the Specification:**

The specification has been amended for the purpose of improving the readability of the application. No new matter has been added.

The specification has been amended to recite "computer-readable storage medium" to be consistent with the claims.

### **Objection to the Claims:**

Claims 1, 22, and 23 have been amended to overcome the objection.

No new matter has been added.

### **Rejection under 35 USC §112, first paragraph – claims 1-6, 9-23**

Claims 1-6, 9-23 stand rejected under 35 USC §112, first paragraph.

Claims 1, 22, and 23 have been amended to overcome the present rejection.

Claims 15 and 16 have been amended to overcome the lack of antecedent basis rejection.

The claims now meet the statutory requirements.

**Rejection under 35 USC §112, second paragraph – claims 1-6, 9-23**

Claims 1-6, 9-23 stand rejected under 35 USC §112, second paragraph, as being allegedly indefinite for omitting essential steps.

The Office Action alleges that the omitted steps are updating the iteration count at the end of each iteration. Claims 1, 22, and 23 has been amended accordingly. The claims now meet the statutory requirements.

**Rejection under 35 USC §101 – claims 1-6, 9-23**

Claims 1-6, 9-23 stand rejected under 35 USC §101 because the claimed invention is allegedly directed to non-statutory subject matter. Claims 1, 22, and 23 has been amended accordingly. The claims now meet the statutory requirements.

**Rejection under 35 USC §112, first paragraph – claims 9-11**

Claims 9-11 stand rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. This rejection is now moot since Claims 9-11 have been canceled.

**Rejection under 35 USC §103(a) – claims 1-6, 9-23**

Claims 1-6, 9-23 stand rejected under 35 USC §103(a) as being allegedly unpatentable over applicants' admitted prior arts (APA) by Koza et al. (US 5,867,397) in view of another APA (Ullman, J.R) as set fourth in the previous office action.

As stated in the background section of the present application, the prior art does “not address the problem of automatically creating novel structures that meet design requirements and that do not possess key characteristics of preexisting technology.” Page 17, lines 2-3. Similarly, “the previously cited efforts for the automatic synthesis of antennas did not address the problem of automatically creating antennas that satisfy the

basic technical design requirements of the antenna and that simultaneously avoid the key characteristics of the preexisting antenna technology.” Page 20, lines 16-19.

Applicant respectfully submits that the proposed combination of Koza and Ullman does not teach or suggest all of the claim limitations of claims 1-6, 12-23. In particular, neither Koza nor Ullman teach or suggest “creating an entity that satisfies a predetermined design requirement that at least one characteristic is not in a reference structure” and “wherein the end-result structure does not possess key characteristics of the reference structure.”

As acknowledged in the office action of 12/10/07, Koza’s 397 patent fails to disclose creating a new entity that avoids certain features of a prior art. (see e.g., 12/10/2007 Office Action, pages 10-11). In particular, Koza’s 397 patent fails to disclose using genetic programming techniques to fine tune a structure to both satisfy a predetermined design requirement and avoid certain limitations of a preexisting structure as claimed. Thus Koza’s 397 fails to disclose “creating an entity that satisfies a predetermined design requirement that at least one characteristic is not in a reference structure” and “wherein the end-result structure does not possess key characteristics of the reference structure.”

Ullman reference discloses a method using an isomorphism value. However, Ullman does not disclose or suggest such a method can be used in genetic programming to design an entity structure. Specifically, there is no disclosure or suggestion using genetic programming techniques to fine tune a structure to both satisfy a predetermined design requirement and avoid certain limitations of a preexisting structure as claimed. Thus Ullman fails to disclose “creating an entity that satisfies a predetermined design requirement that at least one characteristic is not in a reference structure” and “wherein the end-result structure does not possess key characteristics of the reference structure.”

Therefore, for reasons set forth above, it is respectfully submitted that the present invention as claimed is patentable over the Koza’s 397 patent and the Ullman reference.

**Conclusion**

For all of the above reasons, applicants submit that the amended claims are now in proper form, and that the amended claims all define patentable subject matter over the cited reference. Therefore, Applicants submit that this application is now in condition for allowance.

**Extension of Time**

Pursuant to 37 C.F.R. 1.136(a)(3), applicant(s) hereby request and authorize the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 11/4/08

  
Thierry K. Lo

Reg. No. 49,097

1279 Oakmead Parkway  
Sunnyvale, CA 94085-4040